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September 7, 2018

The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, South Carolina 29210

**RE: Duke Energy Progress, LLC's Request for Approval of Revised Meter Related Optional Programs Rider MROP**
**Docket No. 2018-262-E**

Dear Ms. Boyd:

On August 8, 2018, Duke Energy Progress, LLC ("DEP" or the "Company") filed a request for a voluntary program for customers desiring a non-communicating meter that will be manually read each month and to make certain changes to its TotalMeter program to better prepare for the current deployment of its advanced metering infrastructure. In its Order No. 2018-607 dated August 29, 2018, the Commission took the following action:

> "Since these customers already have non-communicative meters on their premises, I'd move that we ask Duke Energy Progress to inform the Commission in greater detail its justifications for removing the existing meters, and that the company also give a more detailed account of the nexus between the setup fee and the actual costs incurred. As part of that cost study, I further move that the company provide a cost comparison to its sister company, Duke Energy Carolinas."

In response to the Commission's Directive Order the Company provides the following additional information:

1. Justification for removing the existing meters
2. Detailed account of the nexus between the setup fee and the actual costs incurred
3. Cost comparison to Duke Energy Carolinas, LLC ("DEC")

## 1. Justification for Removing Existing Meters

In its Directive Order, the Commission states that "…customers already have non-communicative meters on their premises…" However, as a point of clarification, the overwhelming majority of meters currently installed in DEP service territory are Automated Meter Reading ("AMR" or "drive-by") meters, which actually are communicating meters. These meters communicate readings via radio-frequency ("RF") to a metering technician who drives by in a truck. Although the drive-by AMR meters are not capable of the advanced functions of the AMI meters being deployed, AMR meters still utilize RF to communicate. For customers who wish to opt-out of having a communicating meter, the Company believes that replacing the existing drive-by meter with a non-communicative meter is appropriate.

## 2. Detailed Account of the Nexus Between the Setup Fee and the Actual Costs Incurred

Background

The Meter-Related Optional Programs Rider MROP was requested to be revised to offer a new Manually Read Metering program option which requires an Initial Set-up Fee of $170 and a $14.75 Monthly Rate. The option provides for the installation of a meter with its RF communications capability disabled.

Description of Actual Costs Incurred

The Initial Set-up Fee and Monthly Rate were established using traditional cost causation principles. The Company examined the special processes required to provide the Opt-Out service and recommends rates to recover these costs to minimize cost shifting to non-participants. The costs recovered via the Initial Set-Up Fee are non-recurring costs that are required to establish the new service. Such costs include customer service, meter route analysis, metering services and meter exchange cost for the meter and IT cost to modify billing systems to support the new rates. Additional detail and an estimated time and a description of the work needed to complete the incremental tasks listed above is provided in the Manually Read Meter (MRM) Incremental Work Descriptions document attached hereto as Exhibit A. Due to its magnitude, only 10% of the total cost to modify the billing system is requested in the Initial Set-up Fee with the remainder being recovered in the monthly rate. In addition to a portion of the billing system cost, the Monthly Rate seeks to recover on-going monthly cost associated with manually reading the customer's meter. These costs include meter reading and off-cycle read costs.

### 3. Cost Comparison to Duke Energy Carolinas

The following table provides a comparison of the cost support for the rates requested by the Company and the rates currently approved for DEC.

| | DEP Cost Analysis (1,560 Estimated Participants) | DEC Cost Analysis (2,588 Estimated Participants) |
|---|---|---|
| **Description** | **Initial Set-Up Fee Charges:** | |
| Customer Services | $ 2.18 | $ 5.35 |
| Meter Route Analysis | $ 34.23 | $ 36.48 |
| Metering Services | $ 47.96 | $ 42.36 |
| Meter Exchange | $ 65.70 | $ 61.21 |
| IT System Costs | $ 23.96 | $ 13.94 |
| Total Initial Set-Up Fee | **$ 174.03** | **$ 159.34** |
| **Description** | **Monthly Fee Components:** | |
| Monthly Reads | $ 6.64 | $ 7.33 |
| Off-cycle Reads | $ 0.07 | $ 0.12 |
| IT System Costs | $ 8.12 | $ 4.31 |
| Total Monthly Fee | **$ 14.83** | **$ 11.76** |

DEP's costs differ from those of DEC because DEC's rates are based on 2016 costs. Additionally, the number of customers expected to opt-out differ between DEC and DEP, as do labor and contractor rates. Both utilities assumed the same participation rate of 0.1% percent, but since DEC has a larger customer base, the billing system cost was spread over a greater number of participants thereby resulting in a lower overall rate.

We hope that the information included above resolves the questions raised in the Directive to the Commission's satisfaction.

Sincerely,

Heather Shirley Smith

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Enclosures

cc: Ms. Nannette Edwards, Office of Regulatory Staff
Ms. Dawn Hipp, Office of Regulatory Staff
Mr. Jeffrey M. Nelson, Office of Regulatory Staff

# Manually Read Meter (MRM) Incremental Work Descriptions

(Estimated incremental time required to perform each activity)

**Customer Service** (3 minutes)

The 3 minutes (0.05 hours) per customer is a conservative average estimate based on the incremental time to complete the required MRM registration process beyond the standard time to set up a new customer account.

Customer call comes into Customer Contact Center requesting MRM service.
Customer Care Specialists:

I. Verify the Customer of Record/Account Holder is the caller, note why the customer called in, quote the MRM charges and explain that the one-time charge will be on the first billing statement if a certified AMI meter is already installed at the premise.
II. MRM Complete change meter order to said MRM meter on the customer's account.
III. Create Customer Documentation to initiate MRM process, including the customer account #.
IV. Check customer notes to verify whether opt-out has been performed previously. If a non-communicating AMI meter is not already installed at the premise, proceed to step V.
V. Generate meter change order in CIM BUI to be routed to the field for completion. If the request is for new construction, the request will be routed to the New Service team, which will create the meter order through CIM BUI which will generate a set meter order.

**Metering Services Work Order Management** (5 minutes)

The 5 minutes (0.0833 hours) per customer is a conservative average for the Work Management Specialist to create applicable work orders (lab to program non-communicating AMI meter, manual meter reading route analysis for new manually-read customer and assignment to corresponding work groups).

**Metering Services Lab Programming of Meter** (30 minutes)

The 30 minutes (0.5 hours) is a conservative average to identify the appropriate meter type, disable radios and set up an internal courier shipment of the meter to the assigned field technician.

Lab meter technician prepares meter for shipment to field meter technician:

- Lab meter tech is informed of need for a manually read/opt-out meter via work order
- Reviews information to confirm requested meter type and meter form are correct for this application
- Locates appropriate meter in inventory
- Removes meter from inventory, using inventory management system

- Powers up meter in lab on appropriate equipment
- Powers up and logs into computer
- Opens vendor software
- Connects optical probe from computer to meter
- Use the vendor provided software to log into meter
- Meter has two radios, which requires each radio to be turned off by separate operations
- Navigate to the appropriate screens in the software
- Turn off the 900 MHz radio
- Turn off the ZigBee radio
- Upon completion of all necessary steps, the lab meter technician will verify that the meter's display shows the "rF OPT OUT" message
- Disconnects meter from computer and power
- Packages meter and ships to the appropriate location where the field meter tech would receive the meter and place on their truck

**Metering Services Field Technician Meter Exchange** (45 minutes)
The 45 minutes (0.75 hours) for Field Meter Tech and vehicle consists of the 30 minutes system average travel time from an Operations Center to customer premise, and 15 minutes to prepare meter, remove existing meter, and install new meter.

Field Meter Technician prepares to install meter:

- Field Meter Tech is informed of meter exchange via work order
- Verifies the appropriate meter, with radios disabled, is available and loads into truck
- Travels to customer premise
- Reviews work order before exiting vehicle
- Gathers and dons appropriate Personal Protective Equipment (PPE)
- Performs pre-job briefing
- Knocks on door of business/residence to inform customer of meter exchange
- Assesses site for safety issues while searching and walking to the meter
- Confirms the found meter is the correct meter to be exchanged
- Removes meter seal and existing meter
- Installs non-communicating meter
- Confirms meter is showing correct displays and meter is working appropriately (Programs for special rates, if necessary)
- Installs meter seal
- Gathers any material, old seals, etc. to carry back to work vehicle
- Knocks on door of business/residence to inform customer that job is complete
- Returns to vehicle and close out work order.

**Vehicle for Field Meter Tech to perform meter exchange**
The 45 minutes (0.75 hours) for Field Meter Tech and vehicle consists of the 30 minute system average travel time from an Operations Center to customer premise, and 15 minutes to prepare meter, remove existing meter, and install new meter. The actual DEP Fleet chargebacks to Metering Services for 2017 were identified by vehicle type. By adding up the monthly average costs of ownership, labor, parts, fuel, commercial work, and other non-fuel charges, a total monthly average charge per vehicle type was determined. Commercial work is defined as any vehicle maintenance work performed by an external party, while the labor and parts charges are for work by internal company resources on the vehicles.

Then, using the total monthly charges for the type of vehicle used by DEP Field Meter Techs, "Van > 8500lb gross weight capability", and dividing by the average number of payroll hours per month of 173.33 (40 hrs. x 52 weeks = 2080 hrs. per year. 2080 hrs. per year / 12 months = 173.3 hrs. per month).

**Manual Meter Reading Route Analysis** (30 minutes)
Previously, when a new manually read meter was installed, the performer working the install would go to the nearest manually-read meter they could find to record the meter number on the work order. When the order goes through the close process, the closer sets the newly installed meter up in the same route and on the same billing cycle as the "nearby" meter the field performer provided. With increased deployment of AMI technology, the population of manually-read or drive-by meters is continually decreasing, thereby increasing the MRM unit of time necessary to locate the nearest manually-read meter to the new install. It is no longer practical to require the field performer to complete this task.

For the AMI opt-out customers, the route analysis will consist of geographically locating the meter within the routing/mapping system. The Meter Route Analyst will have to utilize the routing/mapping system tools to locate the nearest remaining manually-read meter and add the opt-out meter to that existing route to minimize the inefficiencies of manual meter reading routes. This process will also include determining the customer's existing billing cycle and changing it to match the billing cycle of the nearest manually-read meter, again to minimize the inefficiencies of manual meter reading routes.